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EXAMINER

MULLINS, BURTON S

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/539,036  
Filing Date: December 27, 2005  
Appellant(s): UCHIUMI ET AL.

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Reg.No. 32,815  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 28 August 2009 appealing from the Office action mailed 10 December 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is generally correct.

However, it is noted that the eccentric weight 16 shown in Fig.10 is described in paragraph [0078], not paragraph [0079]. The eccentric weight seen in Fig.3a is denoted by reference number 6 and described in paragraph [0065]. Further, it is noted that the "plane (Fig.3a) including said pair of attachment faces (33e)... intersect[ing] with a circular orbit of the outermost point of the eccentric weight (16) at two points" (Brief, p.6, second paragraph) is not

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specifically “shown in Fig.3a” in the sense of appearing in original Fig.3a and having a reference number. Nor is the “plane” described in the body of the specification. Rather, the plane must be inferred geometrically from the claim language. Appellant provides a marked-up copy of Fig.3a which shows the plane, denoted “Plane S”.

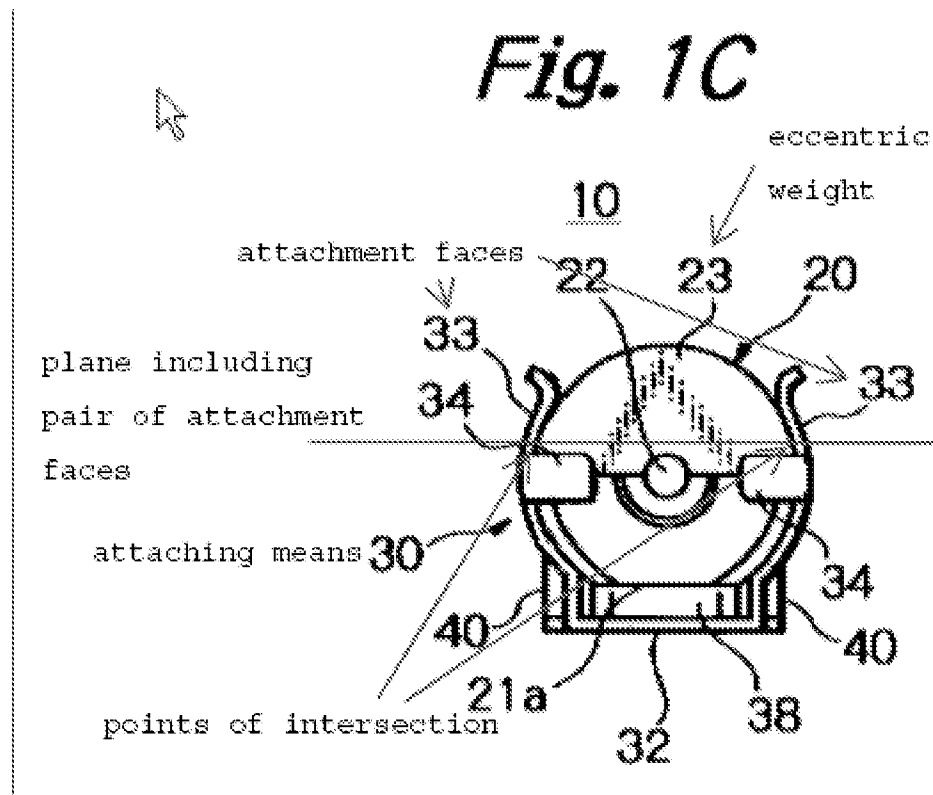
#### **(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant’s statement of the grounds of rejection to be reviewed on appeal is correct.

Claims 29-30 and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Narusawa (US 6,081,055). Narusawa teaches a vibration motor comprised of a motor body 20 (Figs.1B,2A-2C), a motor shaft 22 projecting from the motor body (Fig.1A), an eccentric weight 23 attached to the motor shaft 22 (Fig.1A), and an attaching means (holder frame) 30 (Figs.1A-1D&3A-3C) for supporting said motor body 20 in a horizontal prone posture at one surface of a board 100 (Fig.1a, board 100 illustrated in phantom), wherein the attaching means 30 has a pair of attachment faces (holding spring pieces) 33 straddling said motor shaft 22 and extending in parallel with the same at the two sides of a motor case 20 (Figs.1A-1D) and a plane including said pair of attachment faces 33 (i.e., “including” is construed as meaning the plane contains or ‘includes’ parts of the attachment faces 33 at the intersection thereof) intersects with a circular

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orbit of the outermost point of the eccentric weight 23 at two points.



Regarding claim 30, parts of said pair of attachment faces 33 are positioned closer to said eccentric weight side than a center of gravity of said vibration motor itself (Figs.1A-1D) in the sense that the attachment faces 33 which extend along the entire length of the housing 20 include at least a portion which is closer to the eccentric weight side than a center of gravity of the vibration motor itself.

Regarding claims 35-36, the holding spring pieces 33 comprise “attachment rails” generally U-shaped in cross-section (Figs.3B&3C). Given that the holding spring pieces 33 extend the length of the motor, parts can be considered positioned closer to the eccentric weight 23 side than the center of gravity of the motor.

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**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,081,055

NARUSAWA

06-2000

**(9) Argument**

Appellant argues that the invention's attachment means 30 and the pair of attachment faces 33e disclosed in the amended specification paragraph [0091] and shown in Fig.3, and the pair of attachment rails 33c disclosed in the specification paragraph [0088] and shown in Fig.3, are structurally and functionally different from Narusawa's holder frame 30 and holding spring pieces 33 (Brief, p.11, third full paragraph). Appellant argues that Narusawa does not meet the feature in claim 29 of "...a plane including said pair of attachment faces intersects with a circular orbit of the outermost point of the eccentric weight at two points" and the feature in claim 35 of "a plane including said pair of attachment rails intersects with a circular orbit of the outermost point of the eccentric weight at two points" (Brief p.11, fourth full paragraph through p.12, first paragraph). Appellant supplies a marked-up copy of Fig.3 of his invention and contrasts this with a marked-up copy of Fig.1C of Narusawa (Brief pp.12-13). For claim 29, Appellant argues that in Narusawa Plane "S" does not "include" the pair of attachment faces (formed by holding spring pieces) 33 (marked-up Fig.1C of Narusawa). For claim 35, Appellant argues that in Narusawa, Plane "S" does not "include" the pair of attachment rails (formed by generally U-shaped holding spring pieces) 33 (marked-up Fig.1C of Narusawa). The essence of Appellant's

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argument is that the term “including” in the phrases “a plane including said pair of attachment faces” (claim 29) and “a plane including said pair of attachment rails” (claim 35) means that respective attachment faces 33e or attachment rails 33c must lie in the same plane so as to be included in a single plane, (i.e., Plane “S”, in marked-up Fig.3; Brief p.12, third full paragraph).

Appellant argues that since Narusawa’s spring pieces/attachment faces 33 are curved they cannot be included in a single plane.

Appellant also argues that claim 29 is identical to claim 1 of Takagi (US 7,023,114), that Narusawa does not anticipate dependent claims 30 and 36, and that the attachment faces/rails are supported by the specification.

#### **(10) Response**

Applicant’s argument that the term “including” in the phrases “a plane including said pair of attachment faces” (claim 29) and “a plane including said pair of attachment rails” (claim 35) means that respective attachment faces 33e or attachment rails 33c must lie in the same plane so as to be included in a single plane is not persuasive for several reasons.

A. The claim terminology is interpreted in light of the specification and drawings. With respect to the “attachment faces” of claim 29, the examiner notes that the “attachment faces” 33e are two-dimensional, formed by an edge of an extension 33a in contact with circuit board 50, extending parallel to shaft/spindle 12. See specification paragraph [0088] and Fig.3. Appellant considers Plane “S” to “include” the pair of attachment faces 33e in that the faces lie entirely in the same plane so as to be included in single Plane “S”. With respect to the “attachment rails” of claim 35, however, the examiner notes that the attachment rails 33c

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comprise three-dimensional U-shaped grooves running along the outside of holder 3, parallel to the shaft/spindle 12. See specification paragraph [0088] and Fig.3. The examiner questions how the three-dimensional U-shape of the groove forming each of the “attachment rails” of claim 35, extending in parallel with the shaft, can lie in the same two-dimensional plane so as to be “included” in a single two-dimensional Plane “S”? While “attachment faces” of claim 29 lie entirely in Plane “S” of Appellant’s marked Fig.3, the “attachment rails” of claim 35 do not because they have a three-dimensional U-shaped groove structure extending parallel to the shaft as disclosed by specification paragraph [0088] and seen in Fig.3. Geometrically speaking, a three-dimensional structure cannot lie entirely in a single plane. Thus, Appellant’s interpretation of “including” as meaning that respective attachment faces 33e or attachment rails 33c must lie in the same plane so as to be included in a single plane is inconsistent. While this may hold for claim 29, it does not hold for claim 35.

The only resolution, which the examiner has adopted, is to interpret the term “including” in the phrases “a plane including said pair of attachment faces” (claim 29) and “a plane including said pair of attachment rails” (claim 35) in the broadest reasonable manner consistent with the specification to mean that Plane “S” intersects respective attachment faces 33e or attachment rails 33c. In other words, Plane “S” “includes” or contains parts of the attachment faces 33e or attachment rails 33c at their intersection with Plane “S”. With regard to claim 35, Plane “S” “includ[es] said pair of attachment rails” in that Plane “S” intersects the U-shaped attachment rails 33c---in this case, along one leg of the U-shape of each rail 33c (marked-up Fig.3). With regard to claim 29, Plane “S” “includ[es] said pair of attachment faces” in that Plane “S” intersects the planar attachment faces 33e. It is noted that this interpretation agrees with the



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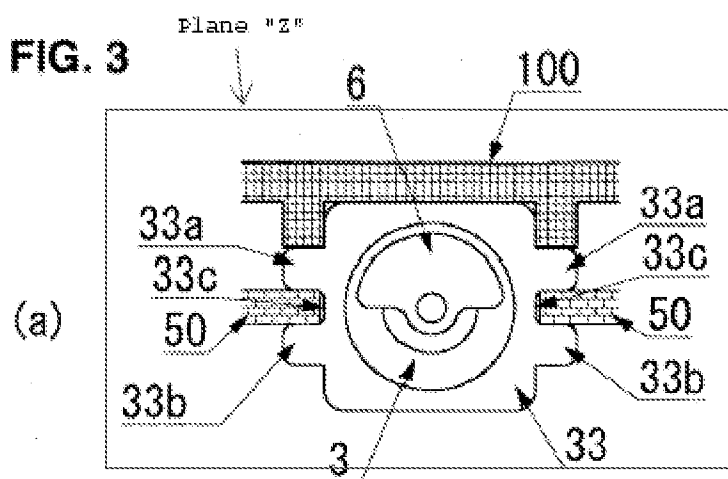
specification insofar as it can be inferred therefrom and also remains consistent between both claims 29 and 35, unlike Appellant's interpretation. There is no explicit disclosure in the specification that the term "including" in the phrase "a plane including said pair of attachment faces [or rails]" means that the faces or rails must lie in the plane, as Appellant argues. Again, this interpretation does not make sense when applied to the geometric relation between the plane and attachment rails of claim 35, as explained above. Therefore, the examiner takes the broadest reasonable interpretation of "including" as referring to an intersection of the plane with the attachment face or rail.

With this interpretation of "including", the examiner answers Appellant's argument that Narusawa does not teach the feature in claim 29 of "a plane including said pair of attachment faces" or the feature in claim 35 of "a plane including said pair of attachment rails" by pointing out that Narusawa teaches such a plane, as denoted Plane "S" by Appellant in marked Fig.1C, which intersects the generally U-shaped holding spring pieces 33 comprising the claimed "attachment faces" or "attachment rails". The intersection means Plane "S" "includes" the holding spring pieces 33 comprising the claimed attachment faces and rails. Again, the recitation "...a plane including said pair of attachment faces [or rails]" is not taken in an exclusive sense to mean that the entire attachment face or rail 33 must lie in the same plane as Plane "S". Rather, it is taken in an inclusive sense to refer to the intersection between the attachment faces or rails 33 and Plane "S". According to MPEP 2111, claims must be given their broadest reasonable interpretation consistent with the specification. The examiner's broad interpretation of "including" in the phrases "a plane including said pair of attachment faces" and "a plane including said pair of attachment rails" is proper since this interpretation is consistent

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between all the claims. Again, if one takes Appellant's interpretation of "including" as meaning that the faces and rails must lie in the same plane so as to be included in a single plane, then claim 35 does not make sense geometrically, as there is no single plane which "includes" or contains entirely the three-dimensional U-shaped attachment rails 33c. Thus, within the broadest reasonable interpretation, Narusawa teaches the feature in claim 29 of "a plane [S] including said pair of attachment faces [33]" and the feature in claim 35 of "a plane [S] including said pair of attachment rails [33]."

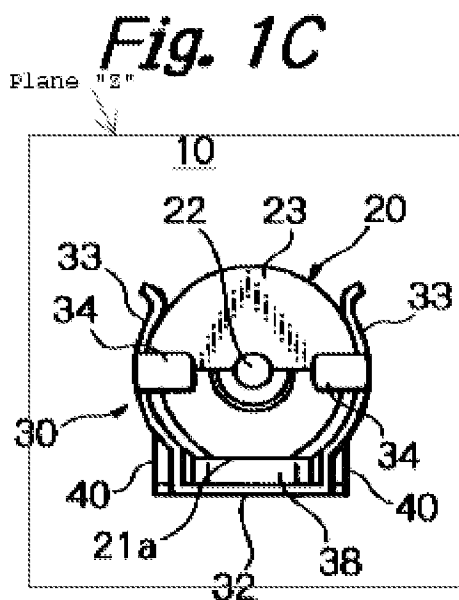
B. A second interpretation of the phrases "a plane including said pair of attachment faces" (claim 29) and "a plane including said pair of attachment rails" (claim 35) considers a plane perpendicular to the shaft to meet the limitation of "a plane including said pair of attachment faces [or rails] intersects with a circular orbit of the outermost point of the eccentric weight at two points" in that such a plane intersects all the points of the circular orbit of the eccentric weight (i.e., if a plane intersects all such points, then it also intersects two points). Such a Plane "Z" is shown below.



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Plane “Z” can be considered to “include[e] said pair of attachment faces” 33e (claim 29) and to “includ[e] said pair of attachment rails 33c” (claim 35) in that the cross-sectional lines of the faces 33e and U-shaped rails 33c all lie in the same plane so as to be included in a single Plane “Z”.

Under this interpretation, Narusawa meets the claim limitations as Narusawa teaches a plane, denoted Plane “Z” in marked-up Fig.1C below, which “includes” the cross-sectional lines of the generally U-shaped holding spring pieces 33 comprising the claimed “attachment faces” or “attachment rails” since these cross-sectional lines denote parts of the faces or rails which lie in the same plane so as to be included in the single Plane “Z”.



Thus, Narusawa teaches the feature in claim 29 of “a plane [Z] including said pair of attachment faces [33]” and the feature in claim 35 of “a plane [Z] including said pair of attachment rails [33].”

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C. Regarding Appellant's argument that since Narusawa's spring pieces/attachment faces 33 are curved they cannot be included in a single plane, the examiner's interpretation in section (A) above of "including" in the limitations "a plane including said pair of attachment faces" and "a plane including said pair of attachment rails" allows the intersection of the curved spring pieces/attachment faces 33 with Plane "S" to read on these limitations, since their curvature and vertical orientation does not prevent Plane "S" from "including" them at points of intersection denoted in marked-up Fig.1C of Narusawa. Similarly, in the interpretation in section (B) above, a Plane "Z" perpendicular to the shaft "includes" cross-sectional lines of the curved spring pieces/attachment faces 33 since these lines lie in the same plane so as to be included in the single Plane "Z".

D. Appellant's comments concerning Takagi (Brief, p.13) are not relevant to the issues on appeal.

E. Appellant's arguments concerning claims 30 and 36 (Brief, section "C", p.14) are not substantive as Appellant merely repeats general arguments made with regard to claims 29 and 35 that Narusawa does not teach "...a plane including said pair of attachment faces intersects with a circular orbit of the outermost point of the eccentric weight at two points" or "a plane including said pair of attachment rails intersects with a circular orbit of the outermost point of the eccentric weight at two points." Thus, the responses made in paragraphs (A)-(C) above apply equally to these arguments.

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F. Appellant's arguments regarding support for the attachment faces/rails (Brief, section "D", p.14-p.15) are not relevant to the appeal as the 35 USC 112, second paragraph rejection of this language was withdrawn in light of amendments made to the specification in the response filed 05 November 2008. The rejection was not repeated in the Final Office Action mailed 10 December 2008.

**(10) Conclusion**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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